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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/157,497	09/21/1998	TADAYOSHI INAMOTO	35.C12973	2481

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT	PAPER NUMBER
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1774

18

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/157,497

Applicant(s)

INAMOTO ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 6-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 17.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 appears to be internally inconsistent. First the claim states that the resin particles have been mutually fused with no particle structure left, and later the claim states that the layer has gaps formed by the fusion of the thermoplastic resin particles. Aren't the gaps structure left from the presence of the particles?

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bilodeau (5,405,678). Bilodeau discloses an ink jet recording sheet having a support that may be a plastic film (see col. 4, lines 20-26). The sheet has an ink receptive coating containing polymer particles that are not fully coalesced, i.e. the particles have not been allowed to melt and form a smooth film. Therefore, a porous coating is created (see col. 3, line 50 to col. 4, line 2). It is apparent from Example 1 that the particles are at least partially melted, however, the language indicates that if the particles are fully coalesced, printing will no longer be possible. Pigment is disclosed for inclusion in this layer at col. 5, lines 49-66.

Consequently, the reference appears to disclose resin particles that may be mixed with pigments on a support and partially melted. This would inherently lead to

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some loss of particle structure, fusion to the support and pores or gaps remaining in the layer. However, the reference states that the small particles of the latex remain intact. This statement appears to conflict with the instant claim 1. Whether claim 1 reads on the reference depends upon the degree of melting that is occurring, in both the layer of the instantly claimed article and in the layer of the reference. Since this level cannot be clearly distinguished, and both the instant claim and the reference would lead one of ordinary skill in the art to conclude that the important feature is the remainder of gaps or pores in the layer, claim 1 is considered to read on the disclosure of the reference. If the layer of resin particles that is partially fused to leave gaps is not explicitly set forth by the reference, then it would have been obvious to one of ordinary skill in the art based upon the discussion in the reference of the presence of pores in the layer and the indication that without pores, the layer would not absorb ink.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilodeau, for reasons set forth above, and further in view of Katsutoshi et al. (Japanese Publication No. 08-002090). Bilodeau discloses the inclusion of inorganic pigment in the ink-receiving layer and gives examples including silica, clay, aluminum hydroxide, etc. While the reference does not specifically disclose the use of alumina hydrate, it would have been obvious to one of ordinary skill in the art to utilize alumina hydrate because it is well known for use in ink receiving layers as an inorganic pigment and is preferred for such use in many instances due to its properties including ink absorbency and ability to fix ink.

The secondary reference teaches an ink jet recording medium, including alumina hydrate as an inorganic pigment in an ink-receiving layer. The support is card-shaped and may be formed from polyvinyl chloride. The medium includes a particulate resin layer having pores therein, over the recording layer. This layer is intended to be densified to protect the recording layer after printing. It would have been obvious to include such a protective layer over the recording layer of the primary reference for its protective function. It would also have been obvious to use a card-shaped polyvinyl chloride support as the plastic film support of the primary reference.

4. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

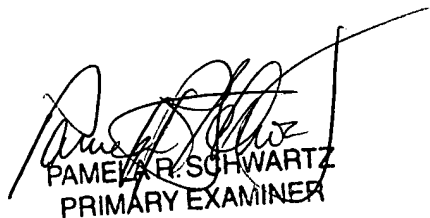
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Schwartz whose telephone number is 703-308-2424. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

PRSchwartz
September 9, 2002



PAMELA R. SCHWARTZ
PRIMARY EXAMINER